VCAT NIST Panel Discussion

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John F. Cassidy

Reactions to yesterday

- Well Begun
  - Use the NIST mission to drive the strategy
  - Identify the uniqueness of NIST
  - Fully fund high priority programs
  - Every OU must have a process

- Work in Progress
  - Drive toward the same process for existing and emerging competencies and initiatives
  - All parts of the organization contribute to and are part of the larger strategy

NIST Mission Relevant Trends Requiring more Attention

- Healthcare and biological science and engineering
  - Aging population
  - How will we cope with the results of genetic science and engineering ?
  - Incredible rate of technological change
- Globalization
  - Other regions use standards as a competitive mechanism
  - Industrial competitiveness depends on selling in non-US markets
  - The significant GDP growth will occur in the developing nations.
  - China > the Walmart connection

DNA of Technical Organizations

- Technical organizations will often execute the programs that they can as opposed to the programs they should.

- Good technical work is necessary but not sufficient.

- Extending the past and responding to short term demands compromises and jeopardizes the future.

Keep in Mind

- "You can't predict the future, but you can prepare for it and shape it. " Jack Welch, 1986.
- Steering by the wake (past) is a really bad idea.
- Building on many parts of the past is a really good idea.
- By behavior, the dominant customer of many technical organizations is themselves.
- You can find some support for almost any idea or program.
- If it appears to be free (or is), it's unreliable input and not worth much.
- "We are unique and that doesn't apply to us."
- People time constant – 10 years, stakeholder time constant 1 year or less

1. How do managers select and prioritize investment opportunities across diverse technologies?

Guided by the uniqueness and mission of the organization :

- Imagine the future and proactively shape it

- One strategy and one process

- Careful departure from the past because the future is different

- Significant strategic shifts in a climate of diminishing or constrained resources

2a.   How do managers respond to personnel whose skills no longer match the new strategic direction of the organization ?

- Drive skill mix change through redirection, retraining and turnover.

- Rigorous disciplined hiring to support the strategic priorities.

- Priority commitment to build emerging (new) core competencies

2b.   Are there other opportunities, as opposed to in-house research, for NIST to best achieve its mission (e.g., partnerships and contracts)?

Yes – much of what will make a difference over the next decades will not be invented or led by NIST.

- A window on the "changing" world.

- Connections to and involvement with a broader set of partners.

- Embrace a "hybrid" business model in which significant research is done external to NIST

- Since physics is the same around the world, share some capabilities

Issues

- At what organizational level and how deeply to allocate resources across the organization

- How should NIST participate in the formulation of the industrial competitiveness agenda?